Work Ord October-31-12		540		*925	540*						Page 1	
Item ID: Revision ID: Item Name:	647.1811 Spacer			Accept	*N900	040	100)* s	etup Sta	IA	S1* S2*	-
Start Date: Required Date: Reference:	11/06/12 : 11/23/12	Start Qty: 2.00 Req'd Qty: 2.00	*2* *2*		Cust Item l Customer:	ID:						
Approvals:	Process Pla	n: <u>ML</u> J	Date: <u>\?</u> -\\-			ate:		R	tun Sta Sto	1/1	R1* R2*	
Sequence ID/ Work Center I	D.	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
Draw Nbr	Rev	ision Nbr							2, 1,000			
647.1800	N/C											
110				0.00								
110 Waterjet FLOW CNC Water 2024 . 06	•		per Dwg	0.00				_2	<u> </u>		JM12	-11-10
		2-Deburr	if necessary									
120		QC2- Inspect parts of	f machine FAI/FAIB	0.00								
120 QC		Memo		0.00					0		Jun	L-11-10

Quality Control

												DQA:	Date:	
NCR:	Yes	/ No					WORK ORDER NON-C	100	NFORI	MANCE / UPI	DATE	0461	D	4
						_						QA Closed:	Date:	•
Nork Ord	er:						DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part	No.						Rework Scrap			Skid-tube Machining	Crosstube Small Fab	4	Water Jet d. Eng. Coor.	Engineering Quality Other
NCR	No.						Use-as-is Work Order Update		inem	noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other
Root					Desc	rip	tion of work order update		nitial	Act	ion	Sign &		
Cause		Date	Step	Qty		o	r Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
oc/Data														
quip/Tooling														
perator														
laterial					ŧ									·
etup														
ther												1		
rocess														
upplier		·											-	
raining														
napproved								1						
			•				F	AUL	T CATE	GORY				
Land	ing (Gear					General							
		Bending			Γ		Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s [BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Γ	Cracks			[Broken/Damaged		Inspect	on Incomplete		Part Incorred	ct	Weld
	Г	Crushed/	Crimped.		Γ		Burrs		Instruct	ions Incomplete/l	Jnclear	Part Lost/Mi	issing	Wrong Stock Pulled
		Cuffs					Contamination		Mainte	nance		Part Moved		_
		Heat Trea	it				Countersink		Mislabe	led		Positioned V	Vrong	
		Inspection	n Strip in	Tube	T	\neg	Cut Too Short		Misread	i		Power Loss/		Other
		Ripples in			Ī	\exists	Drill Holes		Offset		L	.	-	
		Torque W	aves in E	xtrusio	n [Drawing		Out of	Calibration				
		Turning S	equence		r	_	Finish		Out of	Sequence				

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde				*9254	4 0*							Page 2
Revision ID:	647.1811 Spacer			Accept	*N900	040	100)* s	etup	Start Stop		S1* S2*
Start Date: Required Date: Reference:	11/06/12 11/23/12	Start Qty: 2.00 Req'd Qty: 2.00	*2* *2*		Cust Item I Customer:	D:						
Approvals:	Process Pl	lan:	Date:	Tooling: SPC (Y/N):		ate:		F	Run	Start Stop	*NI *NI	R1* R2*
Sequence ID/ Work Center II 130 *130* QC Quality Control	D	Operation Description QC8- Inspect parts - seco	ond check	Set Up/ Run Hours 0.00 15	Tool ID	Tool#	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
*140 *140 *Outsource4 Outsource process	Anodize	Outsource process-Anod Memo ISSUE P/O: HARD ANO	18399	0.00 0.00 AS PER DWG.(SEE NOTE	2)			CX	, /d	141	114	
150 *150* Packaging		Receive & Inspect for D	amage & Mat'l Certs	0.00						la .	BU	/ 2 (3)

Memo

Packaging

NCR:	Yes	1	No

NCR:	es/	/ No					WORK ORDER NON-C	O	NFORM	MANCE / UPD	DATE	0	A Closed:	Date		₹
					 -	7	DISPOSITION				ACAINST					
Nork Orde	er:						DISPOSITION				AGAINST D	EPA	KIIVIENI	PROCESS		
	•	<u></u>				ı	Rework			Skid-tube	Crosstube			Water Jet		Engineering
Part N	lo.						Scrap		ı	Machining	Small Fab		Prod	d. Eng. Coor.		Quality
						1	Use-as-is		Thern	noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR N	10.						Work Order Update			Large Fab	Composite			Supplier		
Root					Desc	rip	otion of work order update		nitial	Acti	ion		Sign &	. •		
Cause		Date	Step	Qty		0	r Non-conformance	Ch	ief Eng	Descri	iption		Date	Verification		QC Inspector
oc/Data																
quip/Tooling																
perator	_															,
laterial	_								•							
etup									Ċ							
ther								1	`							
rocess	_						•									
upplier												ŀ			1	
raining	\dashv														1	
napproved								<u> </u>							_	
								AUL	T CATE	GORY						
Landi					Г	_	General		l c		Г	\neg			٦,	/5 /
	-	Bending			,, F	-	Bend BOM (Bourte		Grain		-	_	valized	<u> </u>	— 1	Pressure/Forced
	\dashv	Centre No Cracks	it Concer	itric to C)/3	_	BOM/Route Broken/Damaged		Hardwa		-	_	ver/Under	 -	_	Temperature/Cure Weld
	-	Crushed/C	له م مرمدنت		-		Burrs		1	on Incomplete ions Incomplete/U			art Incorred) -		Weia Wrong Stock Pulled
	\dashv	Cuffs	.ninpea.		-	-	Contamination	-	Mainte	•	Inclear	-	art Lost/Mi art Moved	ssing ['لــ	wrong stock Pulled
	—	Heat Treat	•		-		Countersink	\vdash	Mislabe		-			Vrong		
		Inspection		Tubo	-	-	Cut Too Short	-	Misread		-	_	ositioned V ower Loss/		\neg	Other
	-	Ripples in		TUDE			Drill Holes	-	Offset	4	L		OWEL LUSS/	Juige [Juici
	\dashv	Torque W		ytrusion	,		Drawing	-		Calibration					-	· · · · · · · · · · · · · · · · · · ·
	\dashv	Turning Se		ACI 031011	` 		Finish	\vdash	ł	Sequence		_				
							· ····		1							

DQA: _____ Date: _____

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde				*925	40*						Page 3
Item ID: Revision ID: Item Name:	647.1811 Spacer			Accept	*N900	040	100)* s	etup Star	1 🕠	S1* S2*
Start Date: Required Date: Reference:	11/06/12	Start Qty: 2.00 Req'd Qty: 2.00	*2* *2*		Cust Item I Customer:	D:					,
Approvals:	Process Pl	an:	Date:	Tooling: SPC (Y/N):		ate:		F	tun Sta Sto	" \	R1* R2*
Sequence ID/ Work Center II 160 *160* QC Quality Control	D	Operation Description QC5- Inspect part compl	eteness to step on W/O	Set Up/ Run 1 25 0.00 35 0.00 13 11 3	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170 SprayPaint Spray Painting			V MIL-P-23377J TYPE1 - 4860-50 PRIMER BAT	0.00 0.00 CLASS N AS PER DWG. CH: 123693	(SEE NOTE 2)			_2		Ø	H 12-12-15
1 80 QC		QC14- Inspect Spray Pa	int ·	0.00				2		,	05 12·12

Quality Control

												DQA:	Date:	
NCR:	Yes	/ No					WORK ORDER NON-C	COI	VFOR	MANCE / UP	DATE			σ
						_	<u></u> -					QA Closed:	Date:	•
Nork Ord	er:						DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
			•••••				Rework	1		Skid-tube	Crosstube	7	Water Jet	Engineering
Part	No.						Scrap	1	1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					· ·		Use-as-is]	Thern	noforming	Finishing	Rec/Stor	re/Packaging	Other
NCR	No.						Work Order Update]		Large Fab	Composite		Supplier	
			T			_						I a. a	<u>,</u>	1
Root		Data	Chara	0.	Desc		otion of work order update	ì	Initial		tion	Sign &	v. ·c	
Cause oc/Data		Date	Step	Qty			or Non-conformance	Cn	ief Eng	Desc	ription	Date	Verification	QC Inspector
oc/Data quip/Tooling														
perator	-													
1aterial	_								•					
etup	┢								Ċ,					1
ther														
rocess														
upplier														
raining														
napproved														
							F/	AUL	T CATE	GORY				
Landi	ng (Gear			_		General				-	_		
		Bending				_	Bend	L	Grain			Ovalized		Pressure/Forced
	<u> </u>	Centre No	ot Concer	ntric to	o/s		BOM/Route	L	Hardwa	-	_	Over/Under	tolerance	Temperature/Cure
	<u> </u>	Cracks			-	_	Broken/Damaged	<u> </u>	1	on Incomplete	_	Part Incorre		Weld
	<u> </u>	Crushed/0	Crimped.				Burrs	\vdash	4	ions Incomplete/	'Unclear	Part Lost/Mi	issing	Wrong Stock Pulled
	_	Cuffs			-	_	Contamination		Mainte		<u> </u>	Part Moved		
	\vdash	Heat Trea		- 1	}	_	Countersink	-	Mislabe		<u></u>	Positioned V		7
	<u> </u>	Inspection	-	Tube	-		Cut Too Short	_	Misread	i		Power Loss/	Surge	Other
	<u> </u>	Ripples in			_	4	Drill Holes	\vdash	Offset	5 191 - 22				
	\vdash	Torque W			[∿]		Drawing	-	4	Calibration				
	I	Turning So	equence		I		Finish	I	JOut of S	Sequence				

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde		540		*925	40*						Page 4
Item ID: Revision ID: Item Name:	647.1811 Spacer			Accept	*N900	040	100)* s	etup Stai	1.7	S1* S2*
Start Date: Required Date: Reference:	11/06/12	Start Qty: 2.00 Req'd Qty: 2.00	*2* *2*		Cust Item I Customer:	D:					
Approvals:		n:	Date:	Tooling: SPC (Y/N):		ate:		R	tun Star Sto	" \	R1* R2*
Sequence ID/ Work Center II 190 *100* Packaging Packaging	D	Operation Description Identify as per dwg & Stock Memo ***IDENTIFY	Location/35C	Set Up/ Run Hours 0.00 0.00	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200 *200* QC		QC21- Final Inspection - V	Vork Order Release	0.00					13/	1/10	D

Quality Control

MF 13-01-09

												DQA:	Date:	
NCR:	Yes	/ No					WORK ORDER NON-	COI	NFORM	ANCE / UP	DATE			8
												QA Closed:	Date:	
Work Ord	er:						DISPOSITION				AGAINST DI	EPARTMENT	PROCESS	
Part I							Rework Scrap Use-as-is Work Order Update		f Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
							· <u></u>	_1		° Ц	' · L	_1	'' '	السسا
Root					Desc	crip	otion of work order update		Initial	Act	tion	Sign &		
Cause		Date	Step	Qty		O	r Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector
oc/Data quip/Tooling Operator Material etup Other rocess upplier raining														
	!		l	<u>. </u>			F	AUI	T CATE	GORY				
Landi	ng (Gear					General							
		Bending Centre No Cracks Crushed/O Cuffs Heat Trea Inspection Ripples in	Crimped. t n Strip in Bend	Tube	-		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misreac Offset	on Incomplete ions Incomplete/I nance led	Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	-	Turning S			'		Drawing Finish	\vdash	1	Calibration				
		i i urning 📏	HOUPDCA		ł		remsn		IL HIT OT S	POHANCA				

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

October-31-12 11:42:12 AM

Work Order ID:

92540

Parent Item:

647.1811

Parent Item Name:

Spacer

Start Date: 11/06/12

Required Date: 11/23/12

Page 1

Start Qty: 2.00

Required Qty: 2.00

Comments:

IPP REV:A 12.10.03 NEW ISSUE DD VERF:JFS

~~													
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.063 2024-T3 .063 sheet		Purchased	No			110	sf	31.6700	0.0252	0.0530526			Jmjan
				<u>Location</u>		Loc Oty	<u>Lo</u>	c Code					
				MAT022		31.67							
				119	916	0.1							
				121	197	16.32							
				123	096	15.25			D3	096			

										DQA:	Date:	
NCR: Ye	es / No				WORK ORDER NON-C	ON	NFORI	MANCE / UP	DATE	QA Closed:	Date:	,
Work Order	:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part No	D				Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	lı	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chi	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												
Other												
Process						1						

FAULT CATEGORY Landing Gear General Bend Bending Grain Ovalized Pressure/Forced Centre Not Concentric to O/S BOM/Route Hardware Over/Under tolerance Temperature/Cure Cracks Broken/Damaged Inspection Incomplete Weld Part Incorrect Crushed/Crimped. Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Contamination Maintenance Part Moved Heat Treat Positioned Wrong Countersink Mislabeled Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other Ripples in Bend Drill Holes Offset Torque Waves in Extrusion Drawing Out of Calibration Turning Sequence Finish Out of Sequence Folio Wave/Twist in Tube Outside Dimensions

Supplier Training Unapproved

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

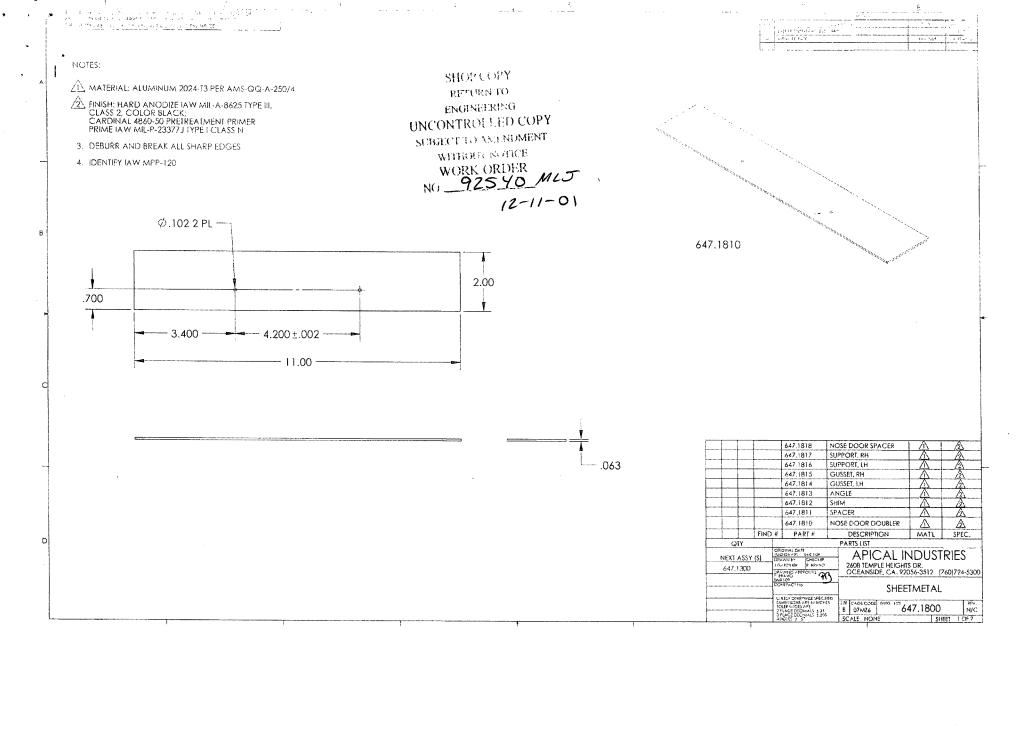
DART AEROSPACE LTD	Work Order: 92540	•
Description: Shim	Part Number: 647. 1811	
Inspection Dwg: 647 1800 Rev: 10/C	Page 1 of	1

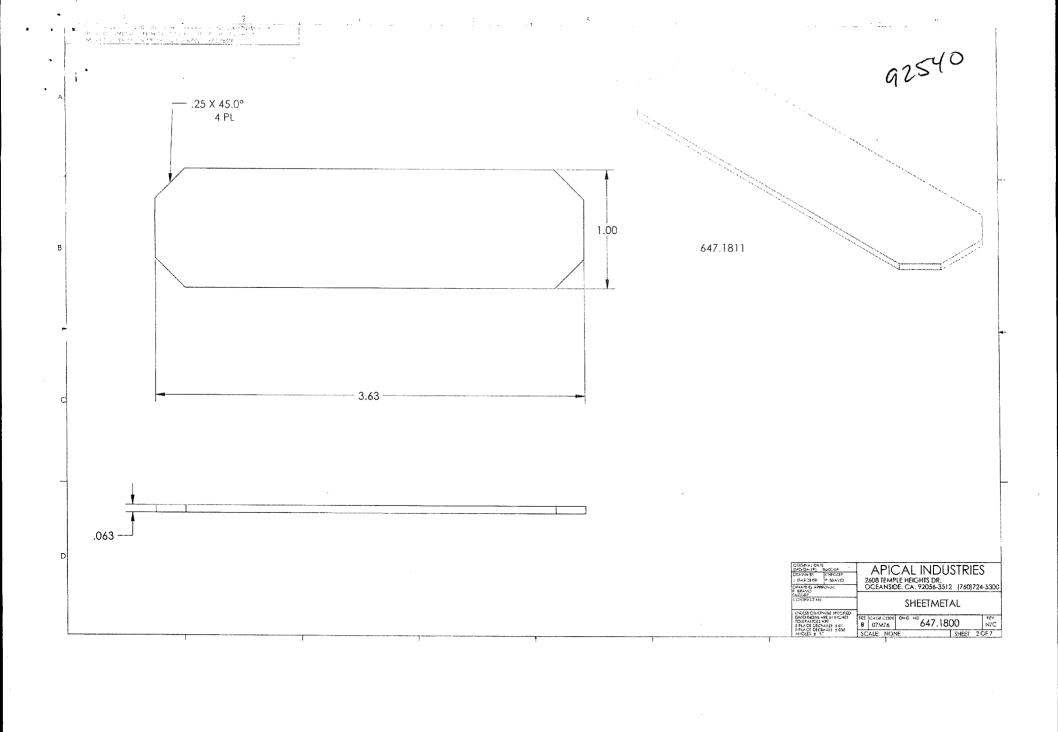
FIRST ARTICLE INSPECTION CHECKLIST

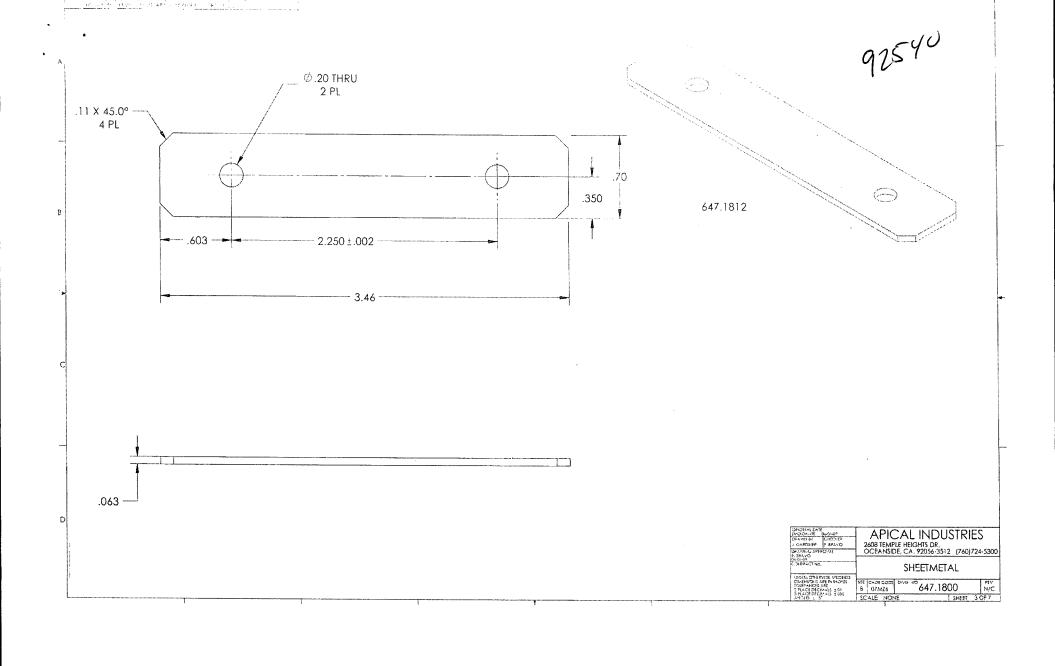
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0,25 x 45°	+1-0,010"/1150	0.25" × 450	V.		U/Pot	Producoz
1.00"	11-0.010	1.005"	. –	9		
3.63"	th 0,00"	1.005" 3.625"	_			
						•
		·		,	÷	
						•
			-			
			·			
<u></u>						
·						
		Y .	·			
		<u> </u>				
				<u> </u>		
	+					
· · · · · · · · · · · · · · · · · · ·		L	SÃO	L	L	

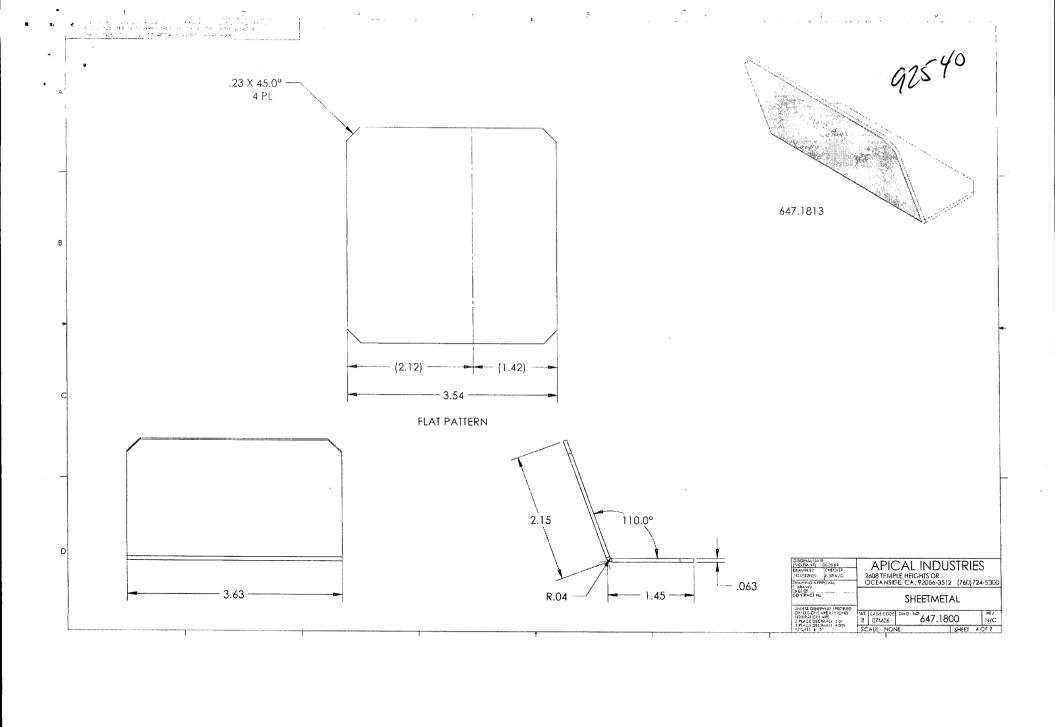
Measured by:	Jm	Audited by:	.15 & 89	Preliminary Approval:	
Date:	12-11-10	Date:	12/11/13	Date:	

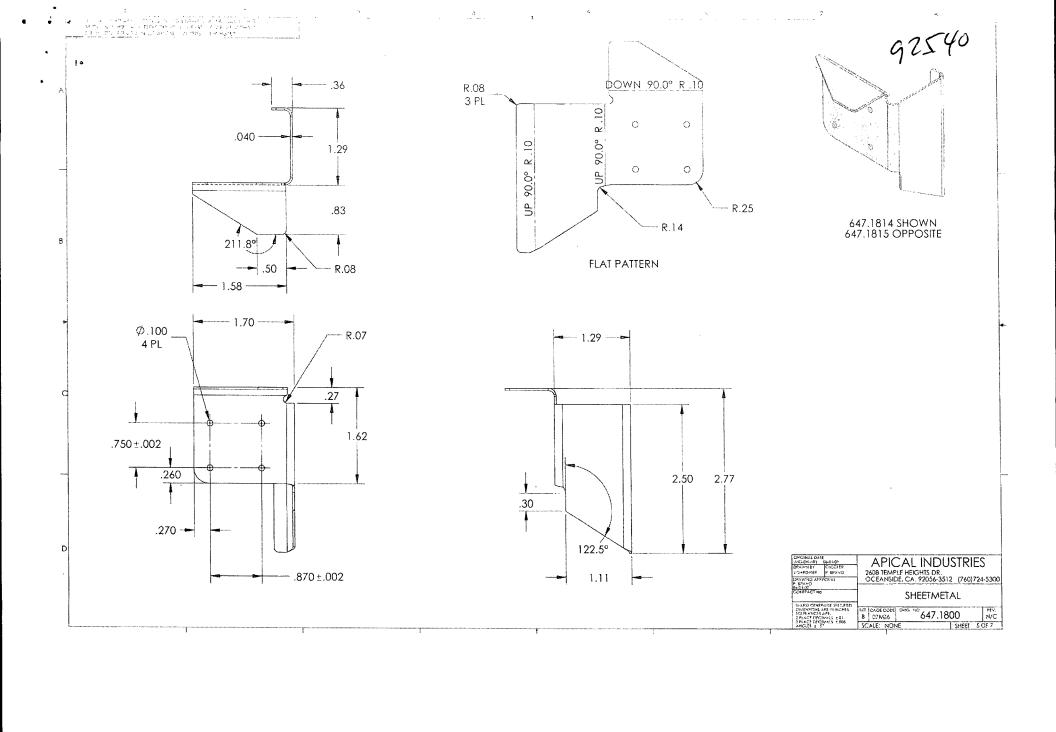
Rev	Date	Change		Revised by	Approved
E	10.04.14	Added preliminary approval	A g	KJ	

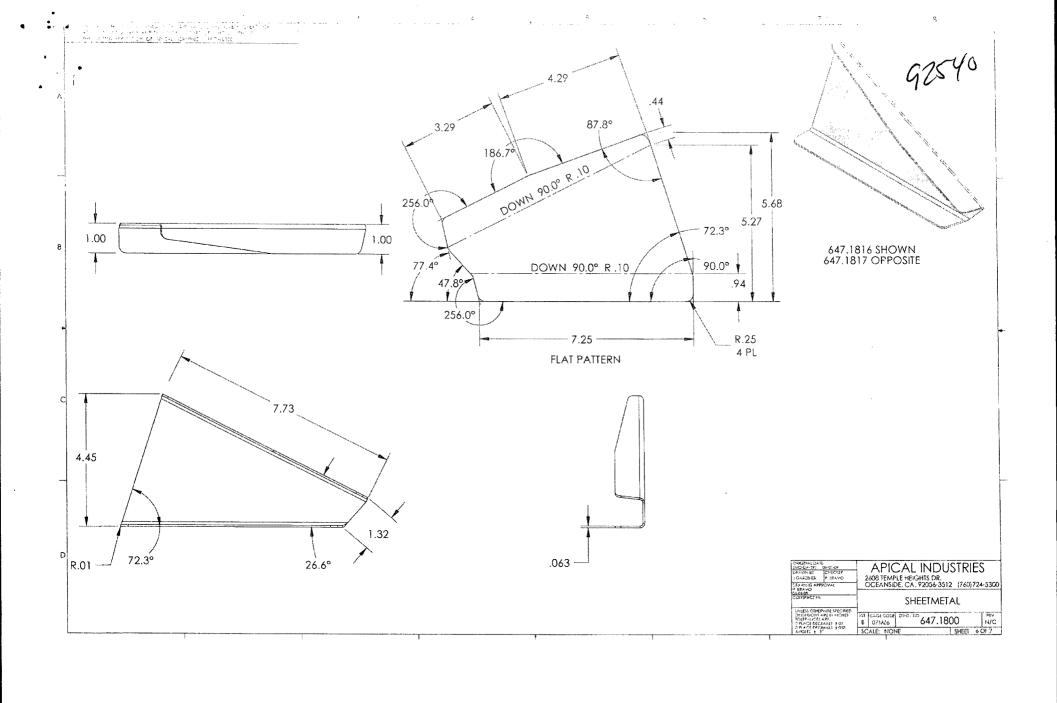


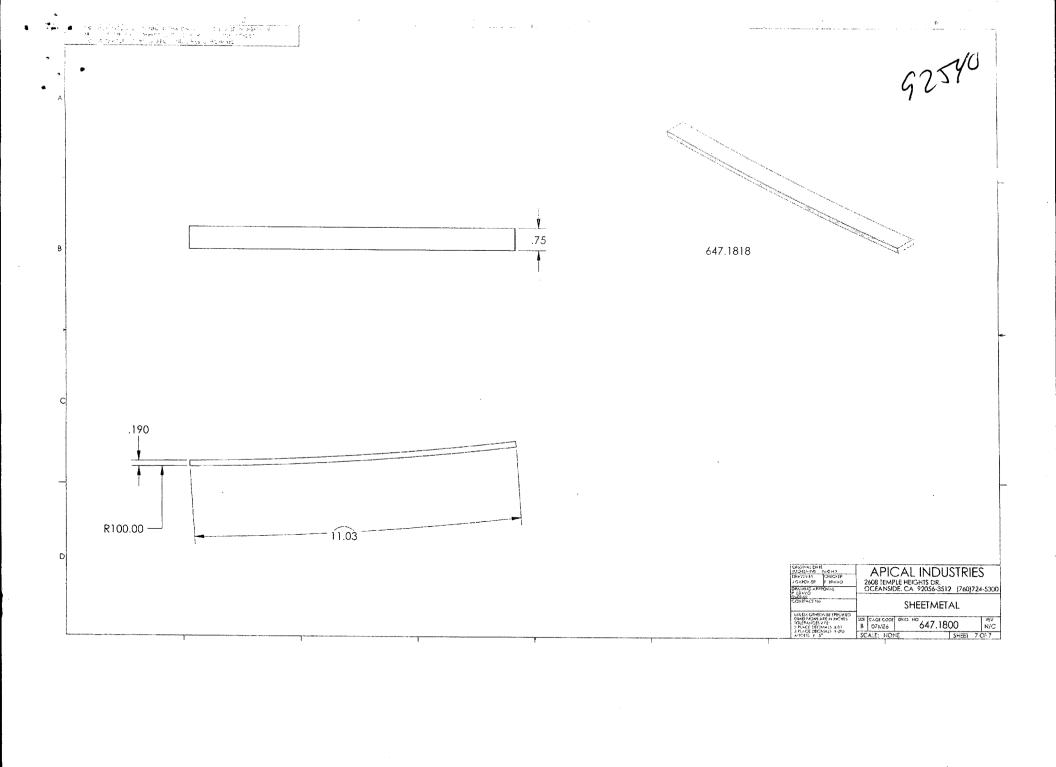














A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Number: 62076

Date: 27-Nov-12

То

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Fil. 013-032-3200		Ship Via				
Terms		Silip via				
		<u> </u>				
Quantity	Description					
1	Part: ASST		Rev:			
lot						
	4 PCS D4410-11					
	2 PCS 647.1612 14 PCS 647.1812					
	11 PCS 647.1613					
	1 PCS 647.1810					
	2 PCS 647.1811					
\	8 PCS 647.1814 11 PCS 647.1815					
1	10 PCS 646.3110					
	HARD ANODIZE BLACK					
	MIL-A-8625 TYPE III CLASS 2 Job: 20120737	PO: PO18399	Line:			
	Certificate of Co	nformance				
	A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.					
	ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY					
	DATE: 27/11/12	1				
	M	V				
	CERTIFIED SIGNATURE :					
	RECEIVER SIGNATURE :					
	RECEIVER SIGNATURE:					
1						